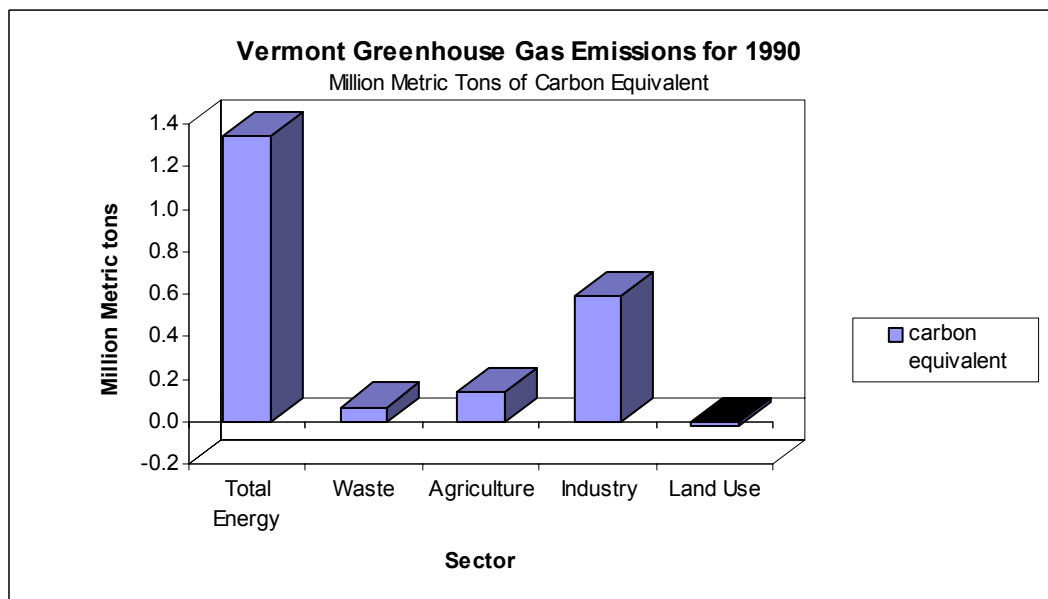


VERMONT GREENHOUSE GAS EMISSIONS AND SINKS INVENTORY: SUMMARY



The report “*Vermont Greenhouse Gas Emissions Estimates for 1990*” provides a detailed inventory of greenhouse gas emissions and sinks for Vermont in 1990. Emissions were estimated using methods from EPA’s 1992 guidance document ***State Workbook: Methodologies for Estimating Greenhouse Gas Emissions***. In 1990, Vermont emitted 2.1 million metric tons of carbon equivalent (MMTCE). Vermont estimated emissions of 1.1 MMTCE from biomass fuels and from other sources not included in the workbook. Emissions from these sources are not included in the reported total or the table below.¹

The principal greenhouse gas was carbon dioxide, comprising 4.9 million metric tons (1.3 MMTCE). Other emissions included methane with 0.04 million metric tons (0.2 MMTCE), 15.5 metric tons of nitrous oxide (0.001 MMTCE), and 185 metric tons of perfluorocarbons (0.6 MMTCE).

¹ Note that the state of the art emission inventory method has advanced since Vermont completed its inventory; therefore, we have made the following adjustments to Vermont’s emission estimates. First, we excluded emission estimates for sources not covered by the most recent inventory guidance (<http://www.epa.gov/ttn/chief/eiip/techreport/index.html>). These emissions include carbon dioxide, methane, and other emissions from additional fossil fuels, ozone depleting compounds, and deer. Second, we used updated carbon coefficients for some fuel types. Third, we used updated values for global warming potentials.

Vermont Greenhouse Gas Emissions for 1990

BY SECTOR	CO2 (MMTCE)	Methane (MMTCE)	Nitrous Oxide (MMTCE)	HFCs, PFCs, and SF6 (MMTCE)	Total GHG Emissions (MMTCE)
Energy - Residential	0.3	*	*	*	0.3
Energy - Commercial	0.1	*	*	*	0.1
Energy - Industrial	0.1	*	*	*	0.1
Energy - Transport	0.8	*	*	*	0.8
Energy - Utility	0.0	*	*	*	0.0
Energy - Exported Electricity	0.0	*	*	*	0.0
Energy - Other	0.0	0.0	0.0	*	0.0
Total Energy	1.3	0.0	0.0	*	1.3
Waste	0.0	0.1	0.0	*	0.1
Agriculture	0.0	0.1	0.0	*	0.1
Industry	0.0	*	0.0	0.6	0.6
Land Use	0.0	*	*	*	0.0
Total	1.3	0.2	0.0	0.6	2.1

All emissions are reported in million metric tons of carbon equivalent (MMTCE).

An asterisk (*) indicates that emissions of the gas from this sector were zero, insignificant, or not reported.

Emissions due to coal mining and extraction of natural gas and oil are included in the energy – other figures, and emissions from biofuel combustion are excluded.

The only source of carbon dioxide emissions was fossil fuel combustion, the majority of which is due to transportation petroleum. Carbon dioxide sinks (i.e., an increase in forest carbon storage) offset about 1.3% of the total carbon dioxide emissions. Sources of methane emissions were domesticated animals (65%), landfills (33%) and manure management (1.3%). Nitrous oxide emissions were attributable to fertilizer use.

Vermont emissions in 1990 were 3.8 MTCE per capita, compared to 1990 U.S. emissions of 6.4 MTCE per capita.